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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/781,842	02/12/2001	Thomas J. Blakemore	D-2958	7727
33197	7590	03/31/2004	EXAMINER	
STOUT, UXA, BUYAN & MULLINS LLP			METZMAIER, DANIEL S	
4 VENTURE, SUITE 300			ART UNIT	
IRVINE, CA 92618			PAPER NUMBER	

1712

DATE MAILED: 03/31/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/781,842	BLAKEMORE ET AL.	
	Examiner	Art Unit	
	Daniel S. Metzmaier	1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23-29, 31, 33-42 and 44-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 23-26, 28, 29, 31, 33-40, 42 and 44-53 is/are rejected.
- 7) ☒ Claim(s) 27 and 41 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 23-29, 31, 33-42 and 44-53 are pending.

Response to Amendment

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn. The following issues remain.

Allowable Subject Matter

2. The indicated allowability of claim 23 (previous claim 30) is withdrawn in view of the newly discovered reference(s) to Bridgeford, 3,852,224; Traubel et al, US 3,646,178; and Michaels, US 3,615,024. Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 23-24, 26, 28-29, 31, 42 and 48-53 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The monomer concentrations set forth in the amended claims are not associated with any particular monomers as

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originally disclosed (see specification at page 10, lines 8-15; and page 11, lines 13-26) and originally claimed (see original claims 9-12).

The original specification sets forth monomer concentrations for specific monomer combinations. The breadth of the claims as now set forth is not adequately provided for in the original disclosure for all copolymers, monomer combinations having the concentrations set forth as now claimed. More specifically, the examiner is unable to locate any disclosure in the original specification wherein copolymers having the concentration range of 45 wt % to 95 wt % of ethylene is disclosed and the claims now read.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 23-24, 26, 28-29, 31, 42 and 48-53 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 23 sets forth concentrations for the first and second monomers without setting forth what are said monomers. Said claims are indefinite where monomers are not set forth for the first and second monomers since the claims may have multiple meanings depending on which monomers are attributed to each of said monomers. It is therefore unclear what are the metes and bounds of the claimed subject matter sought to be patented.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 23-25, 28, 33-40, 42, 44-45 are rejected under 35U.S.C. 5 103(a) as being unpatentable over Oshlack et al. 5,472,712, in view of Bridgeford, US 3,852,224; Traubel et al, US 3,646,178; and Michaels, US 3,615,024. Oshlack et al. (esp. Abstract; Example 28 referring to Example 26; column 2, lines 32-41 as to the amount of ethyl cellulose coating; column 4, lines 28-33; paragraph bridging columns 4 and 57 column 7, lines 53-59; paragraph bridging columns 13 and 14; and column 15, lines 12-21 and 36-57 as to the use of disinfecting agents or germicides such as calcium hypochlorite as the "active" (e.g. in recreational or swimming pools), disclose and/or suggest controlled release additive compositions for use in open circulating cooling water systems (such as recreational or swimming pools) wherein the core active ingredient is a

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disinfecting agent or germicide such as calcium hypochlorite and the coating is made up of units of one monomer such as ethyl cellulose, and thus render them *prima facie* obvious. For example, it would have been obvious to one skilled in the art at the time applicants' invention was made to substitute calcium hypochlorite for the therapeutic acetaminophen in Examples 26 and 28 to prepare a controlled release disinfecting agent in view of the interchangeability of these actives in column 4, lines 28-33. Note that in Example 28 of Oshlack et al., the weight percent of Methocel to the tablet cores is about 6%, and in Example 26, the tablet cores include a binder and a lubricant, which is presumably zinc stearate (a known die release agent) disclosed in column 15, line 47.

To the extent Oshlack et al differs from the claims in the use of a copolymer made up of units of only two different monomers, Oshlack et al (column 13, lines 12-13) teach the use of copolymers of polyvinyl chloride and acetonitrile. Said copolymer is a copolymer made up of units of only two different monomers. It would have been obvious to one skilled in the art at the time applicants' invention was made to employ the copolymers of polyvinyl chloride and acetonitrile taught in the Oshlack et al reference as an obvious functional equivalent to those exemplified therein.

Furthermore, Oshlack et al (column 13, lines 3-42) discloses microporous materials useful in forming the materials disclosed in the Oshlack et al Patent. Oshlack et al (column 13, lines 25-29 and lines 40-42) discloses a number of US Patents relating to useful polymers including copolymers reading on the claims as amended. Oshlack et al further discloses Bridgeford, Traubel et al and

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Michaels references said Patents and further incorporates said Patents by reference.

Bridgeford (column 5, lines 43 et seq; particularly 67-68) specifically mentions ethylene-vinyl acetate copolymers. Traubel et al (Table C, columns 1 and 2) discloses copolymers reading on the concentrations claimed. Michaels (Table I, column 8) discloses acrylonitrile (40)-vinylchloride (60) copolymers, which are specifically mentioned in the Oshlack et al reference.

It would have been obvious to one skilled in the art at the time applicants' invention was made to employ the copolymers having a range of monomer concentrations as shown in the Bridgeford, Traubel et al and Michaels references as incorporated by reference in the Oshlack et al reference.

The instant comparative examples do not show unexpected results or rebut the *prima facie* case of obviousness for the claims directed to the broader subject matter. Claims 38 and 47 claim homopolymers and copolymers including at least one of vinylacetate and ethylene. As shown in Bridgeford clearly teaches ethylene-vinyl acetate copolymers.

10. Claims 46-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oshlack et al., 5,472,712, in view of Bridgeford, US 3,852,224; Traubel et al, US 3,646,178; and Michaels, US 3,615,024; as applied to claims 23 and 32-37 above, and further in view of Etani, 4,692,314. Oshlack et al discloses compositions as set forth in the above rejection.

Oshlack et al in view of Traubel et al and Michaels differs in the methods of specifically adding the chemicals to a cooling tower.

Etani (column 3, lines 14-20; column 10, line 28, to column 12, lines 17; and column 13, lines 16-33) discloses methods for treating water systems including swimming pools and cooling towers with polymer containing compositions, biocides, and corrosion inhibitors.

These references are combinable because they teach water treating compositions, delivery systems therefore and applications thereof. It would have been obvious to one of ordinary skill in the art at the time of applicants' invention to employ the compositions of Oshlack et al added to a cooling tower taught to be conventional in the Etani reference.

Allowable Subject Matter

11. Claims 27 and 41 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

12. Applicant's arguments with respect to claims 23-6, 28-29, 31, 33-40, 42 and 44-53 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel S. Metzmaier whose telephone

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number is (703) 308-0451. The examiner can normally be reached on 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Daniel S. Metzmaier
Primary Examiner
Art Unit 1712

DSM